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U.S. Department of the Interior

Bureau of Land Management
Vernal Field Office

Vernal, Utah — February 1999

DRAFT

Environmental Assessment for American Gilsonite Company's Wagon Hound Gilsonite Mine Shafts Nos. 3 and 7, Uintah County, Utah

EA No. UT-080-1999-17

TRC Mariah Associates Inc.

Environmental Scientists

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Telephone 307-742-3843
Facsimile 307-745-8317

March 2, 1999

Dear Reader:

Your name is included on the Environmental Action Core Mailing List, maintained by the U.S. Bureau of Land Management's (BLM) Vernal, Utah, Field Office. Enclosed for your review and comment is the Environmental Assessment for American Gilsonite Company's Wagon Hound Gilsonite Mine Shafts Nos. 3 and 7, Uintah County, Utah.

The BLM invites you to comment on this document, particularly with respect to the adequacy of the analysis of environmental impacts. The 30-day public comment period ends on April 5, 1999. Please direct any comments to Roger Schoumacher, Project Manager, at the address shown above. Please refer to EA No. UT-080-1999-17 in your correspondence.

The EA was prepared in accordance with the National Environmental Policy Act with the BLM directing the preparation of the document. The document provides an assessment of the impacts of gilsonite mining in eastern Uintah County near Bonanza.

Contact Duane De Paepe, Planning and Environmental Coordinator, BLM, at (435) 781-4400 for further information concerning the EA or this proposed gilsonite production project.

Sincerely,

TRC Mariah Associates Inc.

Roger Schoumacher
Project Manager

RS:ggd
Enclosure
23273\letters\reader.ltr

DRAFT

ENVIRONMENTAL ASSESSMENT FOR AMERICAN GILSONITE COMPANY'S WAGON HOUND GILSONITE MINE SHAFTS NOS. 3 AND 7, UINTAH COUNTY, UTAH

EA No. UT-080-1999-17

Prepared for

U.S. Department of the Interior
Bureau of Land Management
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Vernal, Utah

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1.0 INTRODUCTION

American Gilsonite Company (AGC) proposes to mine U.S. Gilsonite Lease U-060749 in the Wagon Hound gilsonite vein in Section 35, T9S, R24E, in the Book Cliffs Resource Area of the Vernal District of the Bureau of Land Management (BLM) (Figure 1.1). The lease was previously mined from three shafts from 1967 through 1972. This environmental assessment (EA) assesses the impacts of proposed mining that would begin in 1998 and continue for 18-20 years or until the gilsonite deposit is exhausted or there is no further demand for the gilsonite.

The Wagon Hound vein is one of the many gilsonite veins that occur in the northeastern portion of the Uinta Basin (Figure 1.2). Gilsonite--a solid, brittle hydrocarbon--was formed when liquid hydrocarbons from the kerogen-rich beds of the upper part of the Green River Formation flowed into near vertical fractures in the Uinta Formation and subsequently solidified to form veins (Verbeek and Grout 1992; Monson and Parnell 1992). Gilsonite has been mined extensively in the Bonanza area since the latter part of the nineteenth century and is shipped worldwide for use in, among other things, the production of inks, sealing mastics, explosives, paints and varnishes, and some types of nuclear reactors.

1.1 PURPOSE AND NEED

The purpose and need for the Proposed Action is for AGC to exercise its leaseholder's rights to mine gilsonite reserves from Lease No. U-060749 to supply the appropriate quality of gilsonite in the quantities requested by customers and to obtain a return on investment. The lease was previously mined (1967-1972) from three shafts (WH-1, WH-2, and WH-5).

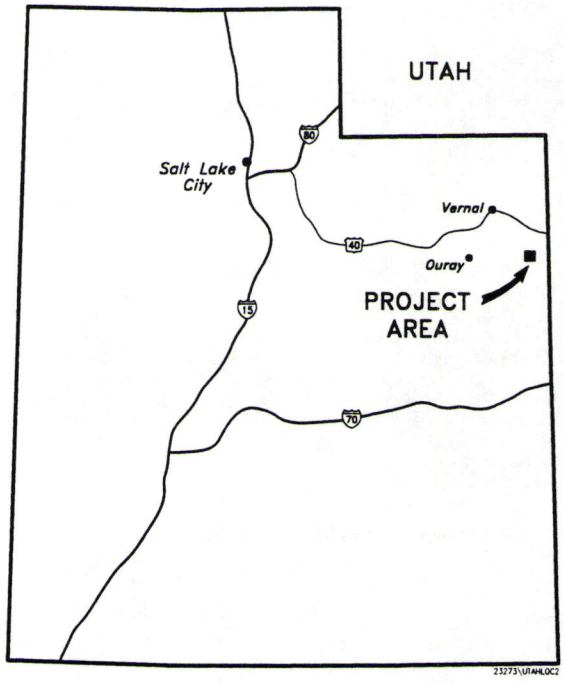

Figure 1.1 General Location Map.

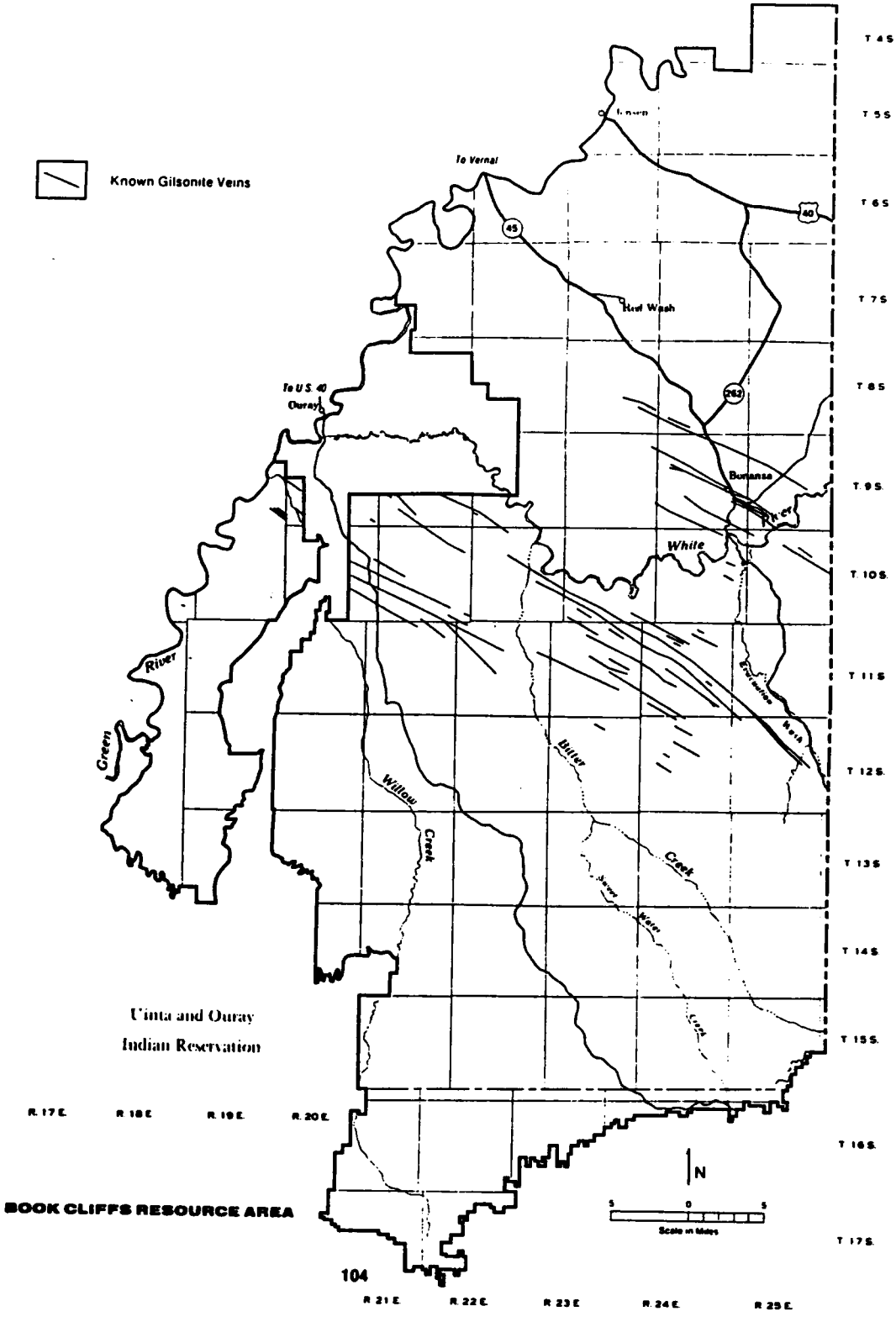

Figure 1.2 Location of Gilsonite Veins in the Uinta Basin.

1.2 RELATIONSHIP TO POLICIES, PLANS, AND PROGRAMS

This EA was prepared in accordance with the *National Environmental Policy Act of 1969* (NEPA) and in compliance with all applicable regulations and laws passed subsequently, including Council of Environmental Quality (CEQ) regulations (40 Code of Federal Regulations [CFR], Parts 1500-1508), U.S. Department of Interior (USDI) requirements (*Department Manual 516, Environmental Quality*), and guidelines listed in BLM *NEPA Handbook, H-1790-1* (BLM 1988).

Because this proposed project is within the Book Cliffs Resource Area, policies for development and land use decisions are contained in the *Final Environmental Impact Statement on the Book Cliffs Resource Management Plan* (BCRMP) (BLM 1984). The Proposed Action would conform with the BCRMP because gilsonite resources would be developed on lands deemed suitable for that use under a development scenario that gives adequate protection to the environment.

1.3 AUTHORIZING ACTIONS

The development of federal gilsonite leases and associated facilities is an integral part of the BLM's leasing program under authority of the *Mineral Leasing Act of 1920* as amended, the *Mineral Leasing Act for Acquired Lands*, and the *Federal Land Policy and Management Act of 1976*. AGC would also submit a *Notice of Intention to Revise Mining Operations* with the Utah Department of Natural Resources, Division of Oil, Gas, and Mining, for review and approval by that agency.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 THE PROPOSED ACTION

The Proposed Action would involve the mining of gilsonite from the Wagon Hound gilsonite vein in Section 35, T9S, R24E, in Uintah County, Utah (Figures 2.1 and 2.2). The vein trends North 56° West, averages 34 inches in width at the surface, and is minable to a depth of approximately 200 ft. An estimated 47,000 tons of gilsonite remain available for mining. The mine would operate for 18-20 years. All mining would occur west of State Route 45 (SR 45).

2.1.1 The Mining Plan

A new shaft (WH-3), located on the northwest end of the lease between existing shafts WH-2 and WH-5, would be opened first. The shaft would be located on the west side of Section 35, T9S, R24E, at an elevation of approximately 5,440 ft. The gilsonite between WH-2 and WH-5 would be mined with the new WH-3 shaft and two escape shafts. When the gilsonite resources are mined out from shaft WH-3 (in an estimated 6-7 years), the gilsonite between existing shaft WH-5 and SR 45 would be mined with one new production shaft (WH-7) and two escape shafts (Figure 2.3).

AGC would construct, at each of the two new shafts, a collar that would be 10 ft long and 3 ft wide (interior width) and extend 1 ft above ground level, with 8-inch thick concrete walls reinforced with rebar. Each shaft would be divided into three compartments supported by timbers. One compartment--the manway--would contain a hoist system for the workers and their equipment. The utility shaft would contain the air hose conduit, electrical cables, and pipeline to the working area. The ladder manway would accommodate a ladder as a second way to access, or escape from, the shaft.

Two escapeways would be constructed to compliment shaft WH-3--one approximately 450 ft to the west and one approximately 750 ft to the east of shaft WH-3. The two escapeways associated with shaft WH-7 would be located approximately 550 ft west and 550 ft east of shaft WH-7 (Figure 2.2). The escapeways would facilitate ventilation of the mine and would have ladderways for escape.

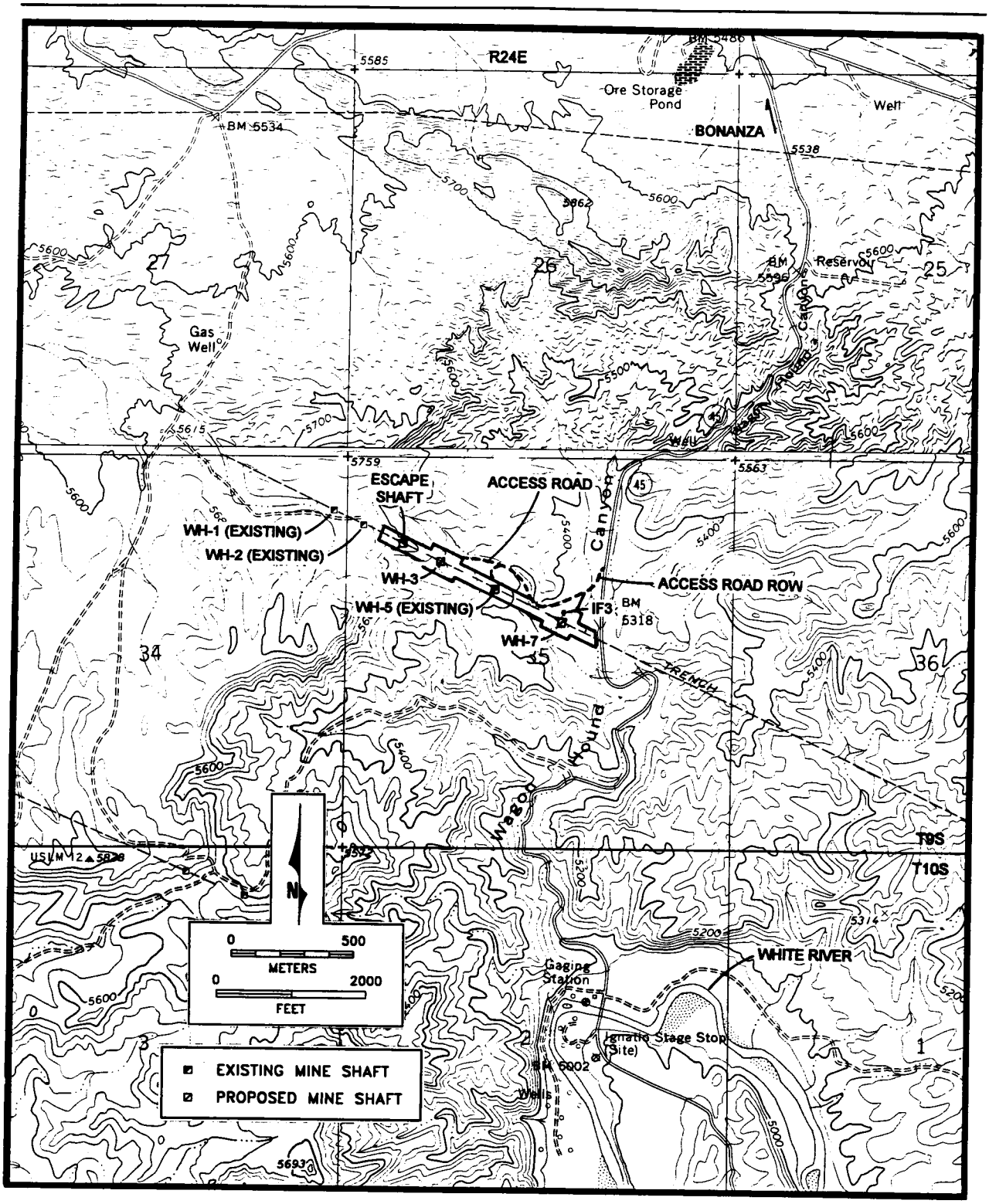

Figure 2.1 **USGS Topographic Map Showing the Location of the Proposed Project. The Outlined Area, as well as the Access Road, were Searched for Cultural Resources. Taken from the Southam Canyon, Utah (1968), USGS 7.5' Series Quadrangle (1:24,000 Scale).**

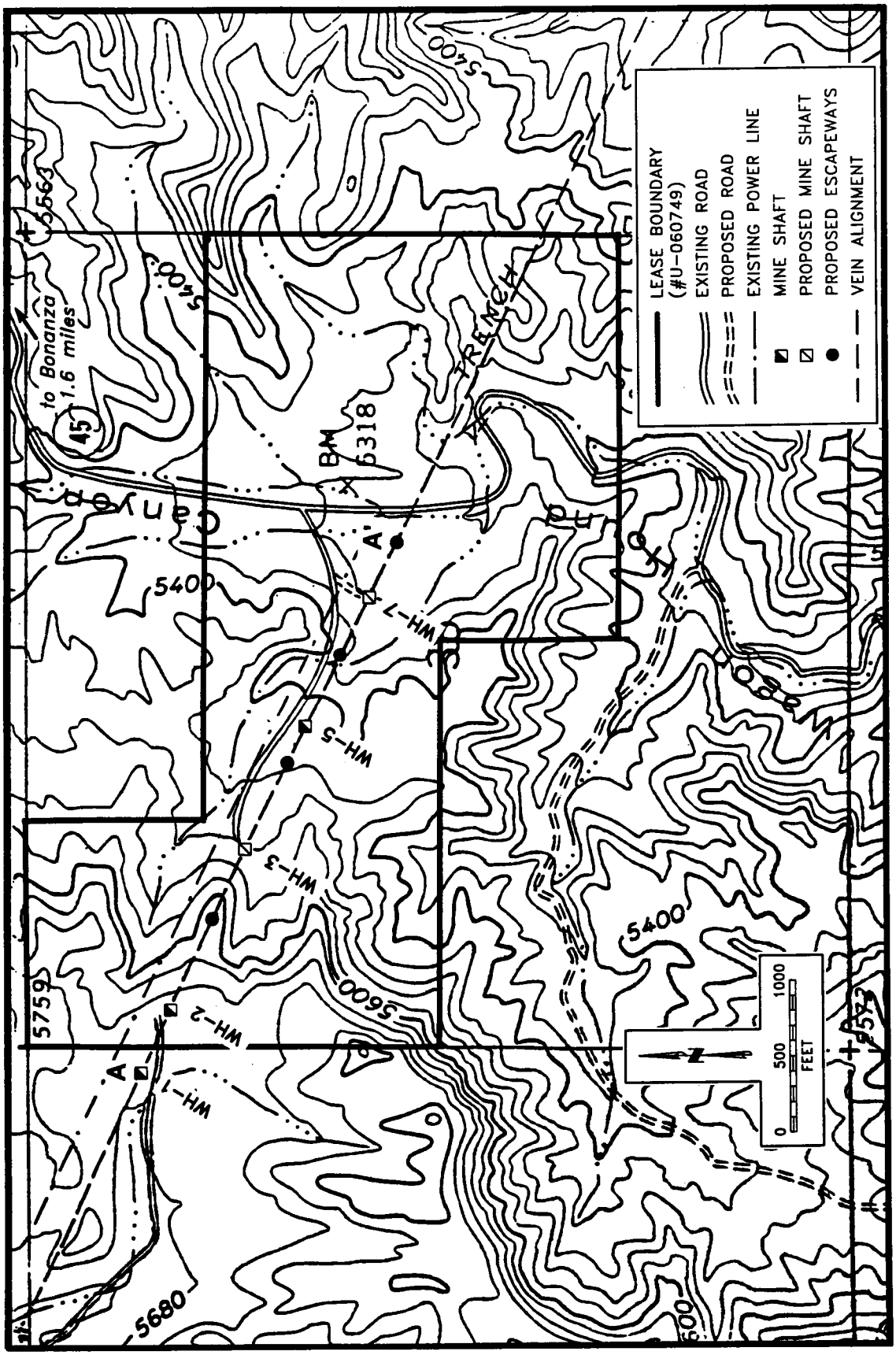

Figure 2.2 Location of Mine Site.

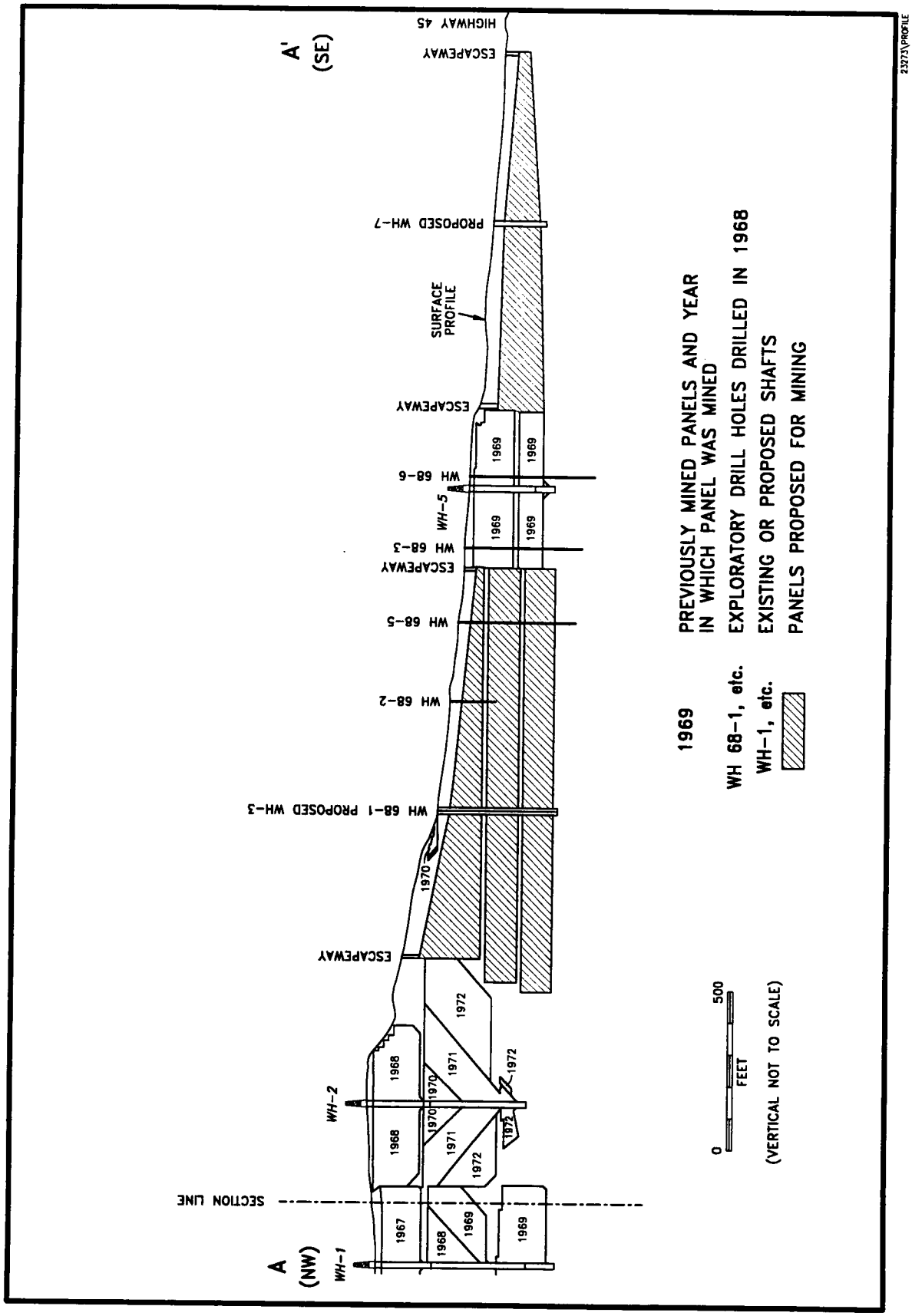

Figure 2.3 Profile of Proposed Mine Looking to Northeast. Points A and A' are the Same as Points A and A' in Figure 2.2.

Waste rock from shaft escapeway excavation would be stored near the excavated passages until reclamation occurs.

Stoping (steplike excavation underground for the removal of ore that is formed as the ore is mined in successive layers) would begin near the top of the vein--30 ft below the surface on both sides of the shaft. Gilsonite ore would be chipped using small pneumatic hammers with moil point bits.

An airlift conduit would be run down the utility shaft to the first level of mining and then elbowed to the face of the ore. After that block of ore was mined, shaft timbering would be carried to the total depth of the old mine. A 20-ft roof to the surface would be left unmined on the west side of WH-3 to prevent surface subsidence and to avoid any surface cuts. Mining would extend to the surface at WH-3 and WH-7; however, no open trench would be exposed at the surface. Rather, mining would extend to near the surface and the soil, subsoil, and in some cases a thin layer of gilsonite would be supported from below with timbers and 2-inch thick boards. Vertical distance between mining blocks would be 100 ft, and a 10- to 15-ft pillar of ore would be left between the blocks for safety reasons. Gilsonite chipped from the slope face would fall to the bottom of the slope and be airlifted to the surface and into the ore bins. The ore would be transported by truck from the ore bins to the processing plant at Bonanza.

An estimated 25-35 tons per day of ore would be mined.

No water would be used during mining on the lease.

New surface disturbance would include approximately 200 ft of new road (a 30-ft right-of-way [ROW]) to access shaft WH-7 (0.14 acres), a 50-ft diameter area around each of the four new escape shafts (0.18 acres), a 150-ft diameter area around each of the two new shafts (0.80 acres), and a 60 x 60-ft sediment pond near each of the two new shafts (0.17 acres)--a total of 1.29 acres. The 50-ft diameter area around each escape shaft and the 150-ft diameter area around each mine shaft would be cleared of vegetation for fire protection. The 150-ft diameter area around each mine shaft would be used for the fan pad, ore bin, derrick, hoist house, portable toilet, and portions of the sediment pond. In addition, the existing dirt access road--a two-track approximately 12 ft wide--would be bladed to a 30-ft ROW resulting in an additional 0.99 acres of disturbance, or a grand total of 2.28 acres of disturbance. No

culverts would be installed in the road ROWs and the roads would not be graveled. Topsoil would be levelled and facilities would be constructed on top of the levelled area.

2.1.1.1 Mine Wall Stabilization and Temporary Floors

Wooden skulls (braces) would be placed wherever necessary to brace the walls of the mine, but generally in a 5 x 5-ft pattern. The timbers for these braces would be stored at each mine site. Temporary floors during mining would be constructed of chain-link fence supported by wooden skulls chipped into the rock walls.

2.1.1.2 Disposal of Waste Rock

Waste rock produced during mining would consist of wall rock and rubble possibly containing some gilsonite in a mixture that is not economically viable to separate. This waste rock would be pushed back into the shaft after completion of mining and prior to shaft sealing.

2.1.1.3 Maps of Underground Workings and Surface Operations

AGC would draw and maintain maps of underground workings on a scale suitable and acceptable to the BLM, including plan maps and vertical cross sections. The maps would be certified by a professional engineer, professional land surveyor, or other qualified person and would be furnished to the BLM's Authorized Officer (AO) as required.

2.1.1.4 Production Records and Maps

AGC would submit to the Deputy State Director, Natural Resources, Utah State Office, BLM, a scaled map showing the construction and the survey coordinates (State Plane or metes and bounds description) of each of the mine features, buildings, and vein, within 90 days after construction is complete.

The surveyor that conducts the survey would be licensed and would stamp the drawing. Land features would be shown on the drawing. These would include, but are not limited to, section corners, roads,

and section lines. An updated map would be sent to BLM within 90 days after construction is completed on any new sites.

AGC would submit maps quarterly to the Utah State Office of the BLM showing the amount of material removed in the previous quarter. These would be submitted on January 15, April 15, July 15, and October 15. The maps would be scaled and show the depth of cut and the thickness of the vein at intervals that can be used to verify production. These maps shall be certified by a registered engineer, land surveyor, or an official of the company.

On January 15 of each year, AGC would submit a 1-year mine plan to the Utah State Office of the BLM showing the proposed mining sequences for the coming year on a scaled map. The 1-year plan would describe the extraction sequence and the projected tonnages for that year.

2.1.1.5 Boundary Markers

AGC would mark the corners of the boundary of the lease with metal fence posts and metal painted signs at each corner of the lease. The signs would show, at a minimum, the legal subdivision of the federal gilsonite lease number. These signs would be located by survey. A scaled copy of this survey (map) would be sent to BLM 180 days after the date of this approval.

2.1.1.6 Hazardous Materials

No hazardous materials would be used during the mining operation other than propane to heat the interior of the hoist house; gasoline, motor oil, battery acid, and antifreeze in vehicles; and grease for lubrication of equipment. All of these substances would be handled in compliance with existing regulations. Less than 10,000 pounds of any chemical(s) from the Environmental Protection Agency's (EPA's) *Consolidated List of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1996* and less than the Threshold Planning Quantity (TPQ) of any extremely hazardous substance(s), as defined in 40 CFR 355, would be used, produced, transported, stored, or disposed of annually in association with the Proposed Action. Therefore, hazardous materials are not discussed further in this document.

2.1.1.7 Transportation of Ore

An estimated two 12-ton ore trucks per day (5 days per week normal work schedule) would transport ore from the mine to AGC's existing facilities at Bonanza, where the ore would be bagged and shipped. Transportation to Bonanza would consist of 2,000 ft of unpaved road and approximately 2.0 mi of paved SR 45. The ore trucks would be covered to prevent the escape of gilsonite dust.

2.1.1.8 Workforce

The workforce would include two underground miners and one hoistman at the surface.

2.1.2 Mine-associated Facilities

2.1.2.1 Access/Haul Road

A existing dirt road would be used to access the mine site from SR 45. The road would be bladed as necessary to facilitate access by ore hauling trucks and other appropriate vehicles. A new 200-ft long access road would be constructed to access shaft WH-7.

2.1.2.2 Other Surface Facilities

Surface facilities to be used in the mining operation includes the following:

- a hoist house and headframe to raise and lower the electric hoist in the manway portion of the mine shaft (Figure 2.4);
- a 50-ton ore bin for storage and loading of the gilsonite;
- a compressor house for the 750-ft^3/min electrically driven compressor that supplies compressed air to equipment in the mine;
- air lift equipment located on a pad next to the headframe, operated by a two 100-hp electric fans and designed to lift ore to the surface through a 12-inch pipe in the utility shaft; and
- one dust collector.

There would be no drain fields, explosive storage, washing facilities, or tanks on-site.

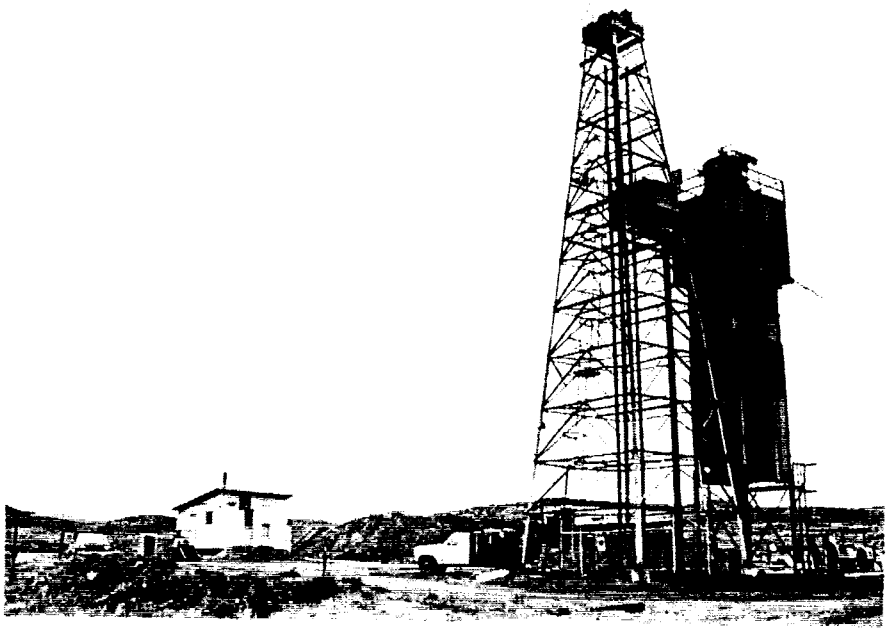

Figure 2.4 Example of Hoist House and Headframe to be Located at Shafts WH-3 and WH-7.

2.1.2.3 Total Area of Surface Disturbance

An estimated 2.28 acres of new surface disturbance would occur as a result of the widening of the existing access road, construction of the new access road to shaft WH-7, clearing around the two new shafts and the four new escapeways, and construction of sediment ponds.

2.1.2.4 Electrical Supply

Electricity to supply power to the hoists, compressors, and fans would be provided by an existing power line that parallels the existing access road. A short aboveground line would connect the power line with the two shaft areas (WH-3 and WH-7). No more than two poles would be required at each of the two new shafts, and the poles would be designed to protect raptors from electrocution. A right-of-way (ROW) application has been submitted for the existing power line because there is no record of a previous ROW permit.

2.1.3 Abandonment and Reclamation

Upon completion of mine operations, all machinery, equipment, and debris would be removed from the site. The site, including access roads, would be graded to conform as closely as possible to premining conditions, tilled, and seeded with a mixture approved by the AO. The existing access road along the existing power line would be left in place to provide access for maintenance/repair of the power line.

When the mine shafts and escapeways would be ready for closure, final designs would be submitted to the AO prior to seal construction. The collar and other structures would be removed. If the seal is to be in an exposed rock outcrop, the top of the seal would be constructed to conform with the contour of the outcrop and would be no higher than the adjacent rock. The concrete would be of a color so as to blend with the surrounding rock, and the bottom of the seal would rest on bedrock. If the seal is to be in a location where soil would cover the seal, the top of the seal would be placed on bedrock and covered with a minimum of 2 ft of topsoil. If the surface pillar covering the vein is removed, the void left from mining would be blasted shut. Blast holes are anticipated to be in a 20 x 20-ft pattern. A blasting plan would be submitted to the AO at least 120 days prior to any blasting. After blasting, the area would be contoured and seeded with a mixture approved by the AO. The estimated disturbance area due to blasting would be 50 ft wide and 2,000 ft long, or 2.3 acres.

2.1.4 Applicant-committed Practices

2.1.4.1 Air Quality

AGC would install Micropul bag filters at the top of the bin to collect dust from the gilsonite raised by the airlift system that brings ore from up through the utility mine shaft. An air quality permit from the Utah Department of Environmental Quality/Air Quality Division to cover the proposed operation is in place.

2.1.4.2 Storm Water Drainage Control

A sediment pond would be constructed on the low side of the shaft and the low side of the ore bin which would contain any gilsonite dust which would be contained in runoff from a rain storm.

2.1.4.3 Fire Protection

Two Ansul 20-pound dry chemical nitrogen-charged fire extinguishers would be placed in the hoist house: one at the collar of the mine shaft, one by the compressor, and two in the hoist house. All rules and regulations regarding fire prevention would be strictly adhered to. If a fire grows so large that it cannot be controlled with fire extinguishers, the Uinta County/Vernal City fire department would be called. If an underground fire occurs, the mine would be sealed. In order to prevent an underground fire, the following precautions will be taken:

- all combustible materials including vegetation will be kept away from mine openings;
- fire retardant-treated timber will be used in mine openings;
- no electrical equipment will be used underground; and
- smoking and smoking materials will be prohibited underground.

2.1.4.4 Safety Precautions

All escapeways that penetrate the surface would be fenced with chain-link fencing that would be a minimum of 6 ft high. All enclosures would have gates with locks to provide a first line of security. Sufficient area inside the fenced area would be maintained for ingress and egress. The gates would be locked when the mine is not in operation.

All openings in the ground would be signed and fenced. When mining is not taking place, the shaft would be covered with planking suitable for the prevention of accidents. Compressor houses would be signed to indicate that ear plugs should be worn in and around them to prevent hearing loss. The property along access roads would be signed to warn the public of mining operations.

2.1.4.5 Cultural Resources

AGC would be responsible for informing all persons who are associated with this project that they would be subject to prosecution for knowingly disturbing historic or archaeological sites or collecting artifacts. If historic or archaeological materials are uncovered during construction, AGC would immediately stop work that might further disturb such materials and contact the AO. The cultural resources would be avoided or mitigated.

2.1.4.6 Miscellaneous Rules and Regulations

In order to minimize the human impacts to the environment from personnel involved in mining activities, employees would be subject to the following regulations as a condition of employment:

- no open fires of any kind except in approved buildings in approved stoves or furnaces;
- no harassing or shooting of wildlife or wild horses;
- no trash left in any unauthorized place;
- no unnecessary off-road driving; and
- no collecting of plants.

Miners would be instructed to maintain a clean camp and to report any unusual activity that could be detrimental and/or unlawful, such as fire or poaching.

2.1.4.7 Communications

For safety and mine efficiency, two-way radio communication would be maintained between the mine and the AGC office in Bonanza.

2.1.4.8 Solid Waste Disposal

All garbage and solid wastes (other than waste rock) would be placed in 55-gallon garbage cans and hauled to AGC's existing dump at Bonanza. A portable chemical toilet would be located at the mine site for use by AGC personnel.

2.1.4.9 Groundwater

Should groundwater be encountered at greater than 5 gallons per hour in the subsurface during the mining of gilsonite, AGC would contact the Mining Engineer at the Utah State Office (801-539-4036) and the Vernal District Office Hydrologist or Geologist (801-781-4400) within 24 hours of the groundwater flow and report on the following:

- true vertical encountered depth;
- subsurface location at which it was encountered;
- the approximate flow rate into the mine; and
- association of flow with any major geologic feature, such as a fault or fracture surface.

Based on this information, the AO would determine if AGC would be required to monitor the effect of the flow into the mine on any nearby wildlife or stock wells. If such wells are affected, the AO may require AGC to supply replacement water to the affected stock or wildlife ponds.

All groundwater flows would be sampled and analyzed for major cations, anions, total dissolved solids, pH, and total suspended solids. Besides these analyses, AGC would follow the rules and regulations of the State of Utah pertaining to the sampling parameters for pollutants and surface effluent discharges from the proposed gilsonite mine (Utah Administrative Code, August 4, 1995, R317-1.2; General Requirements: R317-8.3; Application Requirements for a UPDES Permit: R317-6.2: Ground Water Quality Standards). Results from these analyses and sampling parameters for pollutants as required by the State of Utah would be provided to the following agencies within 30 working days of encountering water.

Bureau of Land Management
Vernal District Office
Hydrologist
170 South, 500 East
Vernal, UT 84078

Bureau of Land Management
Utah State Office
Mining Engineer, USO
P.O. Box 45155
Salt Lake City, UT 84145-0155

2.1.4.10 Raptor Protection

In order to protect raptors from electrocution, the existing power line would be modified so as to comply with standards stated by the Raptor Research Foundation, Inc. (1996).

2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not be implemented. Current land use practices would continue, and gilsonite leasing would continue under direction of the BCRMP (BLM 1984). Any new proposals for removal of gilsonite from the EA area would be reviewed under the NEPA process prior to approval.

3.0 AFFECTED ENVIRONMENT

The EA area is located in eastern Uintah County about 7.5 mi west of the Colorado state line at an elevation of approximately 5,400 ft. All surface and mineral estates are owned by the U.S. and are under the management of the BLM. The area is drained by a dry wash into Wagon Hound Canyon and then to the White River approximately 1 mi to the south. Mean annual precipitation is 9-10 inches, of which 4.5 inches fall during the approximately 125-day growing season (Toy and Grim 1980). Vegetation is dominated by sagebrush, rabbitbrush, and juniper. The project area is included in Antelope Herd Unit 7--the Bonanza Herd; however, the terrain in the vicinity of the project area is generally steep and irregular and unsuitable for pronghorn. There are no known sage grouse strutting grounds (leks) within 2 mi of the project area. The general vicinity of the proposed project is used primarily for oil and gas development, livestock grazing, gilsonite mining, recreation, and wildlife habitat and is traversed by SR 45 which runs from U.S. Highway 40 (to the north) through Bonanza and south across the White River.

Only those elements of the environment that could be significantly affected by the alternatives are discussed in this assessment. Of the 12 critical elements of the human environment (BLM 1988), six (areas of critical environmental concern; prime or unique farmlands; floodplains; wetlands/riparian zones; wild and scenic rivers; and wilderness) do not occur in the vicinity of the project. Of the remaining six critical elements of the human environment, three (Native American religious concerns, air quality, and water quality) would not be affected because of the size and nature of the project. Two remaining critical elements are evaluated in this EA--threatened and endangered species and cultural remains.

In addition to threatened and endangered species (including special status wildlife species) and cultural resources, recreation is addressed because of the proximity of the project area to the White River, which has a growing importance for recreational float trips. No other resources would be expected to be affected by the alternatives.

3.1 CULTURAL RESOURCES

Class III archaeological surveys have been completed on all areas of proposed surface disturbance (McNees 1998). No sites have been previously recorded in the project area, and cultural resources

located during the field survey were limited to three historic isolates, none of which were judged to qualify as eligible for inclusion on the National Register of Historic Places. The potential for undetected surface and subsurface sites is low. Cultural resource clearance is recommended; therefore, cultural resources will not be discussed further in this document.

3.2 THREATENED, ENDANGERED, CANDIDATE, AND OTHER SPECIAL STATUS SPECIES

3.2.1 Threatened, Endangered, Candidate, and Other Special Status Animal Species

3.2.1.1 Black-footed Ferret (*Mustela nigripes*)

The endangered black-footed ferret has the potential to occur wherever prairie dog colonies of sufficient size and acceptable location are found. A single white-tailed prairie dog colony of 250 acres or a complex of smaller colonies (occurring within the area of a circle with a 4.5-mi radius) that totals 250 acres is considered to be the minimum size necessary to constitute potential black-footed ferret habitat (U.S. Fish and Wildlife Service [USFWS] 1989). Prairie dog colonies of sufficient size and density to meet USFWS criteria to require a ferret survey do not occur in the EA area; in fact, no prairie dog colonies exist within the EA area due to the steep topography. There have been numerous unconfirmed reports of ferret sightings within 15 mi of the EA area, both in Utah and Colorado; however, none of the sightings occurred on the EA area. Neither the Proposed Action nor the No Action Alternative would affect black-footed ferrets because suitable habitat does not occur in the EA area; therefore, the species will not be discussed further in this EA.

The EA area is south of the 51,000-acre Coyote Basin Primary Management Zone (PMZ) which is proposed for black-footed ferret reintroduction, although it is within the larger buffer area that would be designated as the "experimental population area." This is one of several such potential or proposed reintroduction areas that would be an integral part of the recovery plan for this federally listed endangered species. Neither alternative would affect reintroduction of black-footed ferrets in Coyote Basin because there are no prairie dog colonies suitable for black-footed ferret habitat within the EA area or along the existing roads which would be used for transporting ore to Bonanza.

3.2.1.2 Bald Eagle (*Haliaeetus leucocephalus*)

No officially designated critical habitat for the endangered bald eagle exists on the EA area. Bald eagles are known to hunt the uplands surrounding the White and Green Rivers, including the EA area, for jackrabbits, cottontails, and carrion during the winter. The species has been known to roost in large numbers along the cottonwood bottoms of the White River, one of which is located 1 mi southeast of the proposed mining operation. Bald eagles would not be affected because their use of the EA area is limited and seasonal. Therefore, the species will not be discussed further in this EA.

3.2.1.3 Peregrine Falcon (*Falco peregrinus*)

No endangered peregrine falcons are known to nest in the EA area, but peregrines have been observed and are believed to nest in the White River Canyon. Excellent peregrine nesting habitat (south-facing cliffs in excess of 300 ft high within 1 mi of a river) exists within 1-2 mi of the mine site, but such habitat is nonexistent in the EA area. Peregrines may occasionally hunt the uplands surrounding the White River, including the EA area. However, peregrines would not be affected because their use of the EA area is limited and occurs predominantly along the White River. Therefore, peregrine falcons will not be discussed further in this EA.

3.2.1.4 Whooping Crane (*Grus americana*)

Whooping crane, an endangered species, fly over the EA area on their migration flights, but do not use the EA area as there is no suitable habitat. Therefore, they would not be affected and will not be discussed further in this EA.

3.2.1.5 Fish

Two endangered fish species occur in the White River--the Colorado pikeminnow (*Ptychocheilus lucius*) and the razorback sucker (*Xyrauchen texanus*). Critical habitat has been designated for the Colorado pikeminnow in the White River adjacent to the EA area. Neither of the endangered fish species would be affected because there would be no water depletions nor would any sediments likely reach the White River due to the distance of the mine from the river and applicant-committed procedures to retain

disturbed soils on-site. Therefore, the two endangered fish species will not be discussed further in this EA.

3.2.1.6 Candidate Animal Species

Candidate animal species (formerly federally listed as Category 1 candidate species) that occur in the general vicinity of the project area include mountain plover (*Charadrius montanus*). Mountain plovers generally nest in shortgrass prairie habitat on the high dry plains and are often associated with prairie dog colonies. They have been documented in suitable habitat several miles to the north of the EA area; however, there is no suitable habitat in the EA areas for the mountain plover, and the species will not be discussed further in this EA.

3.2.1.7 Other Special Status Wildlife Species

Four special status wildlife species may occur in the vicinity of the EA area. The golden eagle is protected also by the Bald Eagle Protection Act. The ferruginous hawk (*Buteo regalis*), flannelmouth sucker (*Catostomus latipinnus*), and roundtail chub (*Gila robusta*) were former Category 2 species until February 28, 1996, when the USFWS dropped their Category 2 and Category 3 lists. The ferruginous hawk and roundtail chub are still considered to be State Sensitive Species (Utah Division of Wildlife Resources 1998).

Golden eagles are present within the EA area year-round; however, no golden eagle nests were located during inspections of the EA area in March and April 1998. A golden eagle nest was active in 1997 to the south of the EA area; however, it is more than 0.5 mi away and not in line-of-sight of the Proposed Action. An on-site survey by BLM personnel determined that no other golden eagle nests were located within 0.5 mi of the project. Therefore, golden eagles would not be affected, and the species will not be discussed further in this EA.

Ferruginous hawks inhabit the EA area and surrounding areas, and numerous active and inactive nests have been located in surveys conducted primarily in conjunction with construction of a railroad and power line associated with the Desert Generation and Transmission Power Plant north of the EA area. Adequate nesting habitat for the ferruginous hawk exists within 0.5 mi of the mine in the form of scattered Utah

junipers and rock pinnacles and ledges. However, an on-site survey by BLM personnel determined that no active or inactive nests are located within 0.5 mi of the EA area; therefore, the species will not be discussed further in this EA.

Flannelmouth sucker and roundtail chub are both found in the White River east and south of the EA area. Neither would be affected because there would be no water depletions, and the small amount of surface disturbance and applicant-committed practices to retain disturbed soils on-site would minimize the amount of sediment reaching the White River. Therefore, neither species will be discussed further in this EA.

3.2.2 Threatened, Endangered, Candidate, and Other Special Status Plant Species

Based on lists provided by the USFWS and the botanist at the BLM's Vernal Field Office, no threatened, endangered, candidate, or plant species of concern are likely to occur in the EA area; therefore, no further discussion is included in this EA.

3.3 RECREATION

The project area would be located approximately 0.75 mi north of the White River canyon, an area that BLM estimated was used by 1,000 recreational boaters during 1997. Demand for boating is anticipated to increase in the future. Most use is in the spring--from May 15 to June 15--when higher river flows facilitate the passage of canoes and rafts, although limited recreational use occurs throughout the spring, summer, and fall months, and most use occurs on weekends. The portion of the White River between Rangely, Colorado, and the confluence with the Green River near Ouray, Utah, cuts through spectacular canyon scenery. Most boaters launch at the Bonanza (SR 45) bridge, located just south of the project area, and take out 35 mi downstream at either the Mountain Fuel Bridge or at an Enron Oil and Gas Company well in Section 28 of T9S, R22E.

Some noise from operating gilsonite mines is audible from portions of the river at the present time as a relatively low-level high-pitched whine and is variable in intensity depending upon location on the river and meteorological conditions. Because the White River is in a deep canyon, no development activity associated with existing gilsonite mining is visible from the river. Water pumping facilities for oil and

gas development are located on the banks of the White River just below the Bonanza bridge--a popular access point for recreationists floating the river. However, the oil and gas wells themselves are located away from the river and are not visible from the river.

4.0 ANALYSIS OF THE PROPOSED ACTION AND ALTERNATIVES

4.1 THE PROPOSED ACTION

4.1.1 Recreation

The proposed mine developments would not be visible from the White River because they would be located behind the ridge line above the river; therefore, nothing in the Proposed Action would be visible to recreationists floating the White River. The fans would produce additional noise which would add to the existing noise audible to recreational users on the White River from the other gilsonite mine fans. Additional traffic associated with the mine would amount to two trucks per day on the 2 mi of SR 45 between the mine and Bonanza and some pickup traffic associated with personnel accessing the mine. The proposed mine would not operate on weekends, when most recreational use of the White River occurs.

4.1.2 Mitigation

Noise from fans would be mitigated by orienting the fans in the direction that minimizes noise at the White River.

4.2 THE NO ACTION ALTERNATIVE

Under the No Action Alternative, there would be no additional surface disturbance and no mining activity. Occasional vehicular traffic, primarily related to recreational use, would continue to use the road.

4.2.1 Recreation

Recreational use of the White River would likely increase, following the trend of the past several years. Noise from existing gilsonite mines and processing facilities would likely continue at existing levels.

4.2.2 Mitigation

Fans at existing gilsonite mines could be oriented to minimize noise reaching the White River.

4.3 UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts under both the Proposed Action and the No Action Alternative would consist of noise from fan operations reaching the White River.

4.4 RELATIONSHIP BETWEEN SHORT-TERM USE OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

For the short-term period of use during which the mine would be productive under the Proposed Action (estimated to be 18-20 years), gilsonite would be mined and marketed. Recreational use would continue on the White River, although some noise from fans would be audible. In the long-term (once operations ceased), the land would be returned to a status that would support prior uses, and fan noise would cease. Only the gilsonite resources would be depleted and unavailable for future recovery.

In the short-term under the No Action Alternative, there would be no additional surface disturbance and no noise generation at the proposed mine site; however, it is likely that additional proposals would be forthcoming to recover the valuable gilsonite resources in the Wagon Hound vein. Recreation use on the White River would continue.

4.5 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

None.

4.6 CUMULATIVE IMPACTS

4.6.1 Reasonable Foreseeable Development

At the present time, there are no authorized prospecting permits for gilsonite; however, there are 18 pending applications, most of which are probably in known gilsonite areas and will likely require competitive bids. Three companies presently control approximately 12 authorized leases, four of which have more or less continuous production. All four of these leases are located in the northeastern portion of the Uinta Basin--three in the Bonanza area. The other eight leases are inactive. There is one additional federal gilsonite lease plan pending near Little Bonanza. There are six active gilsonite leases in the Bonanza vicinity on State Trust Lands, one of which is producing at this time. The BCRMP (BLM 1984) stated that 1-5 mi of currently unleased gilsonite veins would be leased between 1984 and 1994 and subsequently developed. Continued activity at this same level appears likely during the next 10 years, but will depend upon market demand for gilsonite. Development would be similar to that described in this EA and in the EAs for Ziegler Chemical & Mineral Corporation's Cowboy-Bandana Mine (BLM 1994) and Tom Taylor Mine Shaft No. 3 (BLM 1997), with mine staging areas at intervals of 600-1,200 ft along a vein, and each staging area disturbing 1-3 acres. Each staging area would remain in existence for up to 10 years.

Other development activities of significance that are likely to occur in the next 10 years in the vicinity of the EA area include oil and gas development. An existing oil field--the Coyote Basin Field located about 9 mi northeast of the EA area--recently had additional wells drilled, and oil and gas development began in the Red Wash Field (about 14 mi north of the EA area) in 1951. Both of these areas are likely to see additional development in the reasonably foreseeable future, as are extensive fields to the south of the White River.

4.6.2 Cumulative Impacts

Existing gilsonite operations presently create noise from fans and generators that are audible to recreational boaters at the White River. The installation of additional generators and fans that may be heard by recreationists along the White River could add to existing noise levels and could have a negative impact on their expectation for an experience of solitude in a relatively undisturbed river canyon.

5.0 INTENSITY OF PUBLIC INTEREST

Because this proposed project is sufficiently distant from the White River, public interest is not expected to be high.

6.0 RECORD OF PERSONS AND GOVERNMENTAL AGENCIES CONSULTED

Agency	Individual	Position
Utah Division of Oil, Gas, and Mining, Salt Lake City, Utah	Anthony A. Gallegos	Senior Reclamation Specialist, Minerals Reclamation Program
School and Institutional Trust Land Administration, Salt Lake City, Utah	Will Stokes	Mineral Resource Specialist

7.0 LIST OF PREPARERS

Name	Firm	Responsibility
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